

REMARKS/ARGUMENTS

Status of Claims

Claims 1, 11-15, 18, 23-24, 31, 43, and 64 have been amended.

Claims 4, 9-10, 25-30, 32-37, 39-42, 44, and 49-51 have been canceled.

As such, claims 1-3, 5-8, 11-24, 31, 38, 43, 45-48, and 52-68 are currently pending in this application.

Applicants hereby request further examination and reconsideration of the presently claimed application.

Claim Rejections – 35 U.S.C. §112, second paragraph

Applicants note with appreciation that the previous 112 rejections have been overcome.

Examiner Interview

Applicants thank the Examiner for extending the courtesy of a telephonic interview on February 20, 2007 wherein the pending claims and the prior art of record were discussed. The Interview Summary mailed on March 2, 2007 accurately reflects the content of the interview.

Claim Rejections – 35 U.S.C. §103

The claims 1-3, 5-9, 11-24, 31, 38, 46-48, and 54-68 stand rejected under 35 USC §103(a) as being unpatentable over *Reagen* (U.S. 5,376,612) in view of *Manzer* (U.S. 4,057,565). Claims 43, 45-46, 52, and 53 stand rejected under 35 USC §103(a) as being unpatentable over *Reagen* in view of *Furtek* (U.S. 4,876,229). Applicants respectfully submit that the prior art of record does not establish a *prima facie* case of obviousness as to the pending claims. If an independent claim is nonobvious under 35 USC §103, then any claim depending therefrom is nonobvious. *In Re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). According to MPEP § 2142, three basic criteria must be met to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Applicants respectfully submit that *Reagen*, *Manzer*, and *Furtek* do not teach or suggest each and every limitation set forth in the pending claims, and in particular do not teach the specific addition sequence recited in the claims or that such addition sequence abates "water, acidic protons, or both" from the catalyst to provide advantageous results. While Applicants respectfully submit that the previously presented claims distinguish over the prior art of record and are thus patentable, nonetheless Applicants provide the following additional remarks and current amendments to the claims in an effort to substantively advance prosecution and gain early allowance.

Each of the pending independent claims recites a specific addition sequence of the catalyst components that is not disclosed or suggested in the prior art of record. More, specifically, the independent claims recite in pertinent part with emphasis added:

Claim 1: "abating all or a portion of the water, acidic protons, or both from the composition comprising the chromium-containing compound by contact thereof with a non-halide metal alkyl prior to contact thereof with a composition comprising the metal halide-containing compound";

Claim 23: "wherein water, acidic protons, or both are abated from the composition comprising the chromium-containing compound by contact thereof with a non-halide metal alkyl prior to bringing the mixed resultant solution into contact with the composition comprising the chromium-containing compound";

Claim 24: “wherein water, acidic protons, or both are abated from the composition comprising a chromium-containing compound **by contact thereof** with a non-halide metal alkyl **prior to** preparation of the catalyst”;

Claim 31: “wherein water, acidic protons, or both are abated from the chromium source **by contact thereof** with a non-halide metal alkyl **prior to** formation of the catalyst”;

Claim 43: “abating all or a portion of water, acidic protons, or both from the composition comprising the chromium-containing compound, a composition comprising the pyrrole-containing compound, or combinations thereof **prior to contact thereof** with a composition comprising the metal halide-containing compound”;

Claim 46: “abating all or a portion of water, acidic protons, or both from the composition comprising the chromium-containing compound **prior to** formation of the catalyst”; and

Claim 64: “abating all or a portion of the water, acidic protons, or both from the composition comprising the chromium-containing compound, a composition comprising the pyrrole-containing compound, or combinations thereof by contact thereof with a non-halide metal alkyl to form a mixture **prior to contact** of the mixture with a composition comprising the metal halide-containing compound.”

As can be clearly seen from the underlined, bolded language set forth above, each of the independent claims recites a specific addition sequence wherein water, acidic protons, or both are abated from certain catalyst components **prior to contact thereof** with a composition comprising the metal halide-containing compound. Applicants respectfully submit that the prior art of record does not teach or suggest the specific addition sequences recited in the pending claims. Furthermore, as was explained in the interview, the specific addition sequences recited in the pending claims provide the additional advantageous result of reducing formation of corrosive

compounds, as is described in more detail in paragraph 0033 of the specification as follows with emphasis added:

In embodiments to prepare a catalyst, one or more of the catalyst components may contain water, for example the composition comprising the chromium-containing compound. Water may be present in a catalyst compound, for example as a contaminant or as a co-product produced during the preparation of the catalyst compound. For example, water may be co-produced during preparation of the chromium-containing compound, and such water may complex with the chromium. Acidic protons may also be present, for example carboxylic acid (e.g., ethylhexanoic acid) remaining from production of the chromium-containing compound (e.g., chromium tris(2-ethylhexanoate)). This free water as well as acid present in the chromium source can subsequently react with a metal halide present in the catalyst, for example the metal alkyl halide such as DEAC, to form corrosive compounds, e.g. hydrogen halide compound (e.g. hydrochloric acid). Such compounds may cause corrosion in downstream equipment over time, in particular when heated, for example in downstream fractionation facilities. Accordingly, it may be desirable to abate water, acidic protons, or both, when making the catalyst to prevent downstream formation of potentially corrosive by-products.

As is supported by this paragraph, Applicants have further amended the independent claims to specifically recite the advantageous reduction in formation of corrosive compounds. Applicants respectfully submit that it is not obvious from the prior art of record that the specific addition sequence of the catalyst components as recited in the pending claims would provide the advantageous and surprising results of also reducing the formation of corrosive compounds as further recited in the pending claims. Thus, Applicants respectfully submit that the pending claims are in condition for allowance over the prior art of record.

CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections are respectfully requested by Applicants. No new matter is introduced by way of the amendments. Applicants reserve the right to pursue additional subject matter disclosed in the specification by way of one or more continuing applications. It is believed that each ground of rejection raised in the Office Action dated January 9, 2007 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

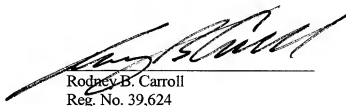
If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

CONLEY ROSE, P.C.

Date: _____

3-7-07



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